

ABSTRACT OF THE DISCLOSURE

A hybrid drive system includes a combustion engine, an electric machine, a short-time storage device and a long-time storage device. The combustion engine and the electric machine are mechanically coupled. They jointly apply a drive torque to a drive when high performance is required. The long-time storage and the short-time storage are charged with different charging voltages, whereby the charging voltage of the long-time storage is lower than that of the short-time storage. Both storage devices are coupled by an electric valve in such a way that, upon a supply of power to the electric machine, the electric machine is initially only supplied from the short-time storage, thus reducing the voltage of the short-time storage. When the voltage of the short-time storage equals or drops below the voltage of the long-time storage, the electric valve connects the short-time storage in parallel.